

RESPONSIBLE WITNESS: WEAR

7. REQUEST:

Referring to Respondent's Exhibit C, Page 8-9, Lines 171-174, please provide the linear regression equations and calculations supporting the projected decline in basis differentials. The response should also provide the coefficients of determination for each of the regression equations.

RESPONSE:

Respondent used the charting capabilities of Microsoft Excel to produce a scatter diagram showing how the basis differentials between Chicago and Respondent's supply areas were projected to change over time. Respondent did not use the linear regression equations and coefficients of determination as the data used in forecasting the decline in basis differentials is monthly data not yearly data. Therefore, the linear regression equations and coefficients of determination would not be statistically sound for the analysis. However, using Microsoft Excel's capabilities, Respondent was able to produce a trendline for each of the charts that shows the best fitting linear relationship for the available data points. From those trendlines, Respondent was able to estimate the slope of the lines by simply observing the manner in which the independent variable, in this case, dollars per MMBtu, changed over a period of time, and expressing that measurement as rate per year.

For example, using the Peoples Energy data, the trendline of Midcontinent to Chicago data shows a basis differential for October of 1999 approximately \$0.24, and a basis differential of approximately \$0.18 for October of 2004. The decline in basis over this 5-year period is, therefore, approximately \$0.06. Reduced to an annual decline rate this becomes slightly more than \$0.01 per year. The same process was repeated for each of the charts, and the rates were averaged together to produce the \$0.01 per MMBtu per year decline in average basis differential referred to in Respondent's Exhibit C.

OFFICIAL FILE

I.C.C. DOCKET NO.

ASS X

Witness

Date

EXHIBIT NO.

TR